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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/501,092

01/25/2005

Katsuya Itoh

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11/28/2006

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EXAMINER

TOSCANO, ALICIA

ART UNIT

PAPER NUMBER

1712

DATE MAILED: 11/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/501,092

Applicant(s)

ITOH ET AL.

Examiner

Alicia M. Toscano

Art Unit

1712

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10/12/04 7/9/04</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Majima (WO 01/092417 as evidenced by US 6780482, which is used as an Equivalent English document).

Majima discloses polyester films for metal sheet laminating. Said films comprise 80-40 wt% polybutylene terephthalate and 20-60 wt% polyethylene terephthalate (abstract).

Regarding the requirement of the half value width of the recrystallization peak: Applicants specification (pg 10-12) disclose the half value width to be a function of processing technique. Specifically, when only one extruder is used, a higher melt blending temperature and higher blending time is necessary, thus causing the PET and PBT undergo transesterification. The resulting films have a half value width greater than 0.25 (see comparative examples). When PET and PBT are first initially melted in separate extruders/containers and further melt-mixed together, the melt mixing can take place in a short time frame, decreasing the transesterification of the product. Films from said process have a half value width less than 0.25 (see examples). Applicants have clearly shown this to be the case in their specification and Examples. As such,

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Examiner first notes that the composition requirements have been met by Majima. Further, Majima discloses using the same process of applicants, where the individual components are separately melted in different extruders prior to blending and extruding (Column 8 Lines 61-64 and Column 10 Lines 33-37). Majima prefers this method in order to control the ester exchange reaction (Column 8 Lines 63-64). As the processing conditions are met, Examiner finds the half value width of the recrystallization peak to be inherent in Majima, thus meeting all the limitations of Claims 1 and 2.

Claim 3 requires a peak temperature of recrystallization of not less than 180C, which is obtained from heating the film and then cooling at a rate of 25C/min (see applicants specification pg 21 lines 20 – pg 22 line 2). Majima discloses a heat-up crystallization peak (T_c) obtained by heating the film and cooling at a rate of 100C/min (Column 16 Lines 17-28). The recrystallization temperatures of Majima and Applicant are not comparable. It is the Examiners position that since Majima has the same polymers, processed in the same manner, that the peak temperature of recrystallization is inherent.

The reduced viscosity is 0.75 or higher (abstract), see Table 2 which discloses numerous examples (ex 2, 3, 4, 6, 8, and 10-12) in which the intrinsic viscosity of the stretched film is higher than 0.80, as required for Claim 4. Said film is used for laminating a metal sheet (title) and form processing (Column 12 Lines 21-27), as required for Claims 5 and 6.

Conclusion

2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. JP 10-110046 is cited as an X reference on the ISR report. Jp 10-110046 discloses PET/PBT films. JP 10-110046 recognizes the need to minimize the esterification between the two polymers [0018], and seems to further discloses melting the two polymers individually before blending [0024]. As such JP 10-110046 is equivalent to US 6780482. JP 10-110046 does not disclose a half value width of the recrystallization peak.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alicia M. Toscano whose telephone number is 571-272-2451. The examiner can normally be reached on Monday to Friday 8:30 AM to 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on 571-272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

AMT

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